

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR
(AUTONOMOUS)**

7thBoS Meeting of Mechanical Engineering (MECH)

Date: 12/07/2021

The 7th meeting of Board of Studies (BoS) in Mechanical Engineering is held on 12th July, 2021 (Monday) at 10.00 AM online through ZOOM.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. S. Sunil Kumar Reddy, Chairman - BoS chaired the meeting and welcomed all the members to the seventh BoS meeting and discussed the following agenda:

1. Approval of course structure and syllabi for II year B.Tech. under R20 Regulation.
2. Approval of course structure and syllabi for III year B.Tech. under R19 Regulation.
3. Approval of course structure and syllabi for IV year B.Tech. under R18 Regulation.
4. Approval of examiners and paper setters for II, III and IV B.Tech. that comes under R20, R19 & R18 respectively.
5. Any other item with the permission of Chair.

After a brief introduction of the agenda items listed above, each agenda item were taken up for discussion and the following resolutions were passed.

Minutes:

Agenda: 1

Approval of course structure and syllabi for II year B.Tech. under R20 Regulation in MECH w.e.f., 2021-2022.

Resolution: 1

After detailed discussion, the BoS resolved to approve the course structure and syllabi for II year B.Tech. under R20 Regulation (given in **Annexure –I** respectively) applicable from the A.Y.2021-2022.

A. Course & Syllabus Comparison

With reference to the R19 regulations, the new regulation (R20) syllabus for II year has the following modifications which, are given in the below table.

II B.Tech

| S.No | R19 Regulation | R20 Regulation | Percentage of course content changed |
|------|--|---|--------------------------------------|
| 1 | Numerical Methods, Probability & Statistics | Numerical Methods, Probability & Statistics | 0 |
| 2 | Fluid Mechanics & Hydraulics Machinery | Fluid Mechanics & Hydraulic Machinery | 0 |
| 3 | Strength of Materials | Mechanics of Solids | 0 |
| 4 | Kinematics of Machinery | Kinematics of Machinery | |
| 5 | Thermal Engineering | Thermal Engineering | 0 |
| 6 | Basic Electrical and Electronics Engineering Lab | Fluid Mechanics & Hydraulic Machinery Lab | 0 |
| 7 | Strength of Materials Lab | Strength of Materials Lab | 0 |
| 8 | Thermal Engineering- Lab | Thermal Engineering Lab | 50 |
| 9 | Automobile Engineering Lab- I | Automobile Engineering Lab- I | 0 |
| 10 | Environmental Science | Environmental Science | 0 |
| 11 | | Entrepreneurship Development | 100 |
| 12 | CAD/CAM | CAD/CAM | 5 |

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|----|--|------------------------------------|-----|
| 13 | Manufacturing Processes | Manufacturing Processes | 20 |
| 14 | Materials Engineering | Materials Science | 10 |
| 15 | Theory of Machines | Theory of Machines | 0 |
| 16 | Computer Aided Machine Drawing Lab | Computer Aided Machine Drawing lab | 25 |
| 17 | Manufacturing Processes Lab | Manufacturing Processes Lab | 0 |
| 18 | | Materials Science Lab | 100 |
| 19 | Computer Aided Modeling & Analysis Lab | Computer Aided Modelling Lab- I | 100 |

Consolidated Sheet

| Course | Total courses | Percentage of syllabus changed |
|-------------------|---------------|--------------------------------|
| ME B.Tech II Year | 19 | 21.57 |

B. Course Relevance

The courses that comes under the category of Employability, Skill or Entrepreneurship development are shown in the table below.

II B.Tech

| Sno | Course Title | Course Code | Relevance |
|-----|---|-------------|-------------------|
| 1 | Fluid Mechanics & Hydraulic Machinery | 20CE0160 | Employability |
| 2 | Mechanics of Solids | 20CE0164 | Employability |
| 3 | Kinematics of Machinery | 20ME0304 | Employability |
| 4 | Thermal Engineering | 20ME0305 | Employability |
| 5 | Fluid Mechanics & Hydraulic Machinery Lab | 20CE0112 | Skill Development |
| 6 | Strength of Materials Lab | 20CE0106 | Skill Development |
| 7 | Thermal Engineering Lab | 20ME0306 | Skill Development |
| 8 | Automobile Engineering Lab- I | 20ME0365 | Skill Development |
| 9 | Entrepreneurship Development | 20HS0815 | Entrepreneurship |
| 10 | CAD/CAM | 20ME0307 | Employability |
| 11 | Manufacturing Processes | 20ME0308 | Employability |
| 12 | Materials Science | 20ME0309 | Employability |
| 13 | Theory of Machines | 20ME0310 | Employability |
| 14 | Computer Aided Machine Drawing lab | 20ME0311 | Skill Development |
| 15 | Manufacturing Processes Lab | 20ME0312 | Skill Development |
| 16 | Materials Science Lab | 20ME0313 | Skill Development |
| 17 | Computer Aided Modelling Lab- I | 20ME0366 | Skill Development |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

Agenda: 2

Approval of course structure and syllabi for III year B.Tech. under R19 Regulation in MECH w.e.f., 2021-2022.

Resolution:2

After detailed discussion, the BoS resolved to approve the course structure for III year B.Tech. under R19 Regulation (given in **Annexure –II** respectively) applicable from the A.Y.2021- 2022.

A. Course & Syllabus Comparison

With reference to the R18 regulations, the new regulation (R19) syllabus for III year has the following modifications which, are given in the below table.

III B.Tech

| S.No | R18 Regulation | R19 Regulation | Percentage of course content changed |
|------|--|---|--------------------------------------|
| 1 | Design of Machine Elements-I | Design of Machine Elements-I | 20 |
| 2 | Machine Tools | Machine Tools | 0 |
| 3 | CAD/CAM | CAD/CAM | 5 |
| 4 | Thermal Engineering | Thermal Engineering | 20 |
| 5 | Elements of Road Traffic Safety | Elements of Road Traffic Safety | 0 |
| 6 | Solar Photovoltaic Systems | Solar Photovoltaic Systems | 0 |
| 7 | Introduction to IOT | Introduction to IOT | 0 |
| 8 | Software Development & Testing | Software Development & Testing | 0 |
| 9 | | Business Ethics | 100 |
| 10 | Machine Tools lab | Machine Tools lab | 0 |
| 11 | Thermal Engineering- Lab | Thermal Engineering- Lab | 0 |
| 12 | Computer Aided Analysis Lab | Computer Aided Modeling & Analysis Lab | 30 |
| 13 | English for Corporate Communication Skills Lab | English for Corporate Communications Skills Lab | 0 |

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|----|-----------------------------------|------------------------------------|-----|
| 14 | Design of Machine Elements-II | Design of Machine Elements-II | 0 |
| 15 | Heat & Mass Transfer | Heat & Mass Transfer | 0 |
| 16 | Metrology & Measurements | Metrology & Measurements | 10 |
| 17 | Non-Conventional Energy Resources | Non-Conventional Energy Resources | 12 |
| 18 | Project Planning and Control | Project Planning and Control | 0 |
| 19 | | Neural Networks and Fuzzy Logic | 100 |
| 20 | MATLAB Programming | MATLAB Programming | 0 |
| 21 | | Introduction to Cyber Security | 100 |
| 22 | | Strategic Management | 100 |
| 23 | Heat Transfer Lab | Heat Transfer Lab | 0 |
| 24 | Metrology and Measurements Lab | Metrology and Measurements Lab | 0 |
| 25 | Robot Programming Lab | Robot Programming Lab | 0 |
| 26 | | Human Values & Professional Ethics | 100 |

Consolidated Sheet

| Course | Total courses | Percentage of syllabus changed |
|--------------------|---------------|--------------------------------|
| ME B.Tech III Year | 26 | 22.96 |

B. Course Relevance

The courses that comes under the category of Employability, Skill or Entrepreneurship development are shown in the table below.

III B.Tech

| S.No | Course Title | Course Code | Relevance |
|------|--|-------------|-------------------|
| 1 | Design of Machine Elements-I | 19ME0311 | Employability |
| 2 | Machine Tools | 19ME0312 | Employability |
| 3 | CAD/CAM | 19ME0313 | Employability |
| 4 | Thermal Engineering | 19ME0314 | Employability |
| 5 | Elements of Road Traffic Safety | 19CE0129 | Skill Development |
| 6 | Solar Photovoltaic Systems | 19EE0239 | Skill Development |
| 7 | Introduction to IOT | 19EC0450 | Skill Development |
| 8 | Software Development & Testing | 19CS0545 | Skill Development |
| 9 | Business Ethics | 19HS0861 | Skill Development |
| 10 | Machine Tools lab | 19ME0315 | Employability |
| 11 | Thermal Engineering- Lab | 19ME0316 | Employability |
| 12 | Computer Aided Modeling & Analysis Lab | 19ME0317 | Employability |

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|----|---|----------|-------------------|
| 13 | English for Corporate Communications Skills Lab | 19HS0859 | Skill Development |
| 14 | Design of Machine Elements-II | 19ME0318 | Employability |
| 15 | Heat & Mass Transfer | 19ME0319 | Employability |
| 16 | Metrology & Measurements | 19ME0320 | Employability |
| 17 | Non-Conventional Energy Resources | 19ME0321 | Employability |
| 18 | Project Planning and Control | 19CE0147 | Skill Development |
| 19 | Neural Networks and Fuzzy Logic | 19EE0231 | Skill Development |
| 20 | MATLAB Programming | 19EC0451 | Skill Development |
| 21 | Introduction to Cyber Security | 19CS0546 | Skill Development |
| 22 | Strategic Management | 19HS0862 | Skill Development |
| 23 | Heat Transfer Lab | 19ME0322 | Skill Development |
| 24 | Metrology and Measurements Lab | 19ME0323 | Skill Development |
| 25 | Robot Programming Lab | 19ME0324 | Skill Development |
| 26 | Human Values & Professional Ethics | 19HS0858 | Skill Development |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

Agenda: 3

Approval of course structure and syllabi for IV year B.Tech. under R18 Regulation in MECH w.e.f., 2021-2022.

Resolution: 3

After thorough discussion, course structure and syllabus was framed to make the students acquire required technical knowledge and skills. The BoS resolved to approve the course structure for IV year B.Tech. under R18 Regulation (given in **Annexure –III** respectively) applicable from the A.Y.2021-22.

A. Course & Syllabus Comparison

With reference to the R16 regulations, the new regulation (R18) syllabus for IV year has the following modifications which, are given in the below table.

IV B.Tech

| S.No | R16 Regulation | R18 Regulation | Percentage of course content changed |
|------|------------------------|------------------------|--------------------------------------|
| 1 | Operations Research | Operations Research | 20 |
| 2 | Automobile Engineering | Automobile Engineering | 0 |

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|----|---|---|-----|
| 3 | Gas Dynamics and Jet Propulsion | Gas Dynamics and Jet Propulsion | 100 |
| 4 | | Turbo Machines | |
| 5 | Refrigeration & Air Conditioning | Refrigeration & Air Conditioning | 0 |
| 6 | Mechatronics | Mechatronics & Robotics | 50 |
| 7 | Finite Element Methods | Finite Element Analysis | 20 |
| 8 | Quality Control and Reliability Engineering | Quality Control & Reliability Engineering | 0 |
| 9 | Advanced welding processes | Advanced Welding processes | 15 |
| 10 | Modern Manufacturing Methods | Modern Machining Methods | 80 |
| 11 | Power Plant Engineering | Power Plant Engineering | 0 |
| 12 | | Project Planning and Control | 100 |
| 13 | | Solar Photovoltaic Systems | 100 |
| 14 | Matlab Programming | MATLAB Programming | 0 |
| 15 | | Software Development & Testing | 100 |
| 16 | | Entrepreneurship Development | 100 |
| 17 | Computer Aided Design Lab | Computer Aided Analysis Lab | 18 |
| 18 | | Robot Programming Lab | 100 |
| 19 | | Project Phase-I | 100 |
| 20 | MOOC | MOOC-I | 0 |
| 21 | | MOOC-II | 100 |
| 22 | | Project Phase-II | 100 |
| 23 | | Comprehensive Viva Voce | 100 |

Consolidated Sheet

| Course | Total courses | Percentage of syllabus changed |
|-------------------|---------------|--------------------------------|
| ME B.Tech IV Year | 23 | 52.30 |

B. Course Relevance

The courses that comes under the category of Employability, Skill or Entrepreneurship development are shown in the table below.

IV B.Tech

| S.No | Course Title | Course Code | Relevance |
|------|---------------------------------|-------------|---------------|
| 1 | Operations Research | 18ME0324 | Employability |
| 2 | Automobile Engineering | 18ME0325 | Employability |
| 3 | Gas Dynamics and Jet Propulsion | 18ME0334 | Employability |
| 4 | Turbo Machines | 18ME0335 | Employability |

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|----|---|----------|-------------------|
| 5 | Refrigeration & Air Conditioning | 18ME0336 | Employability |
| 6 | Mechatronics & Robotics | 18ME0337 | Employability |
| 7 | Finite Element Analysis | 18ME0338 | Employability |
| 8 | Quality Control & Reliability Engineering | 18ME0339 | Employability |
| 9 | Advanced Welding processes | 18ME0340 | Employability |
| 10 | Modern Machining Methods | 18ME0341 | Employability |
| 11 | Power Plant Engineering | 18ME0342 | Employability |
| 12 | Project Planning and Control | 18CE0146 | Skill Development |
| 13 | Solar Photovoltaic Systems | 18EE0236 | Skill Development |
| 14 | MATLAB Programming | 18EC0450 | Skill Development |
| 15 | Software Development & Testing | 18CS0544 | Skill Development |
| 16 | Entrepreneurship Development | 18HS0815 | Skill Development |
| 17 | Computer Aided Analysis Lab | 18ME0326 | Skill Development |
| 18 | Robot Programming Lab | 18ME0328 | Skill Development |
| 19 | Project Phase-I | 18ME0329 | Employability |
| 20 | Project Phase-II | 18ME0333 | Employability |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

Agenda: 4

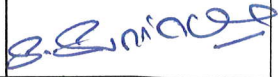

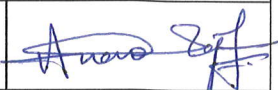
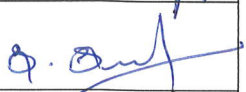


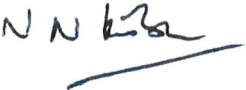


Approval of Panel of examiners and Question paper setters for various regulations under UG.

Resolution:4

Approved the panel of examiners prepared for valuation and panel of question paper setters (given in **Annexure–IV** respectively) to be submitted to the college Academic council for approval.

The above items were discussed, debated and the necessary approval was accorded by the BoS. The meeting was concluded with vote of thanks proposed by the Chairman-BoS.

Members Present

| S. No. | Member Name | Designation/Organisation | Role of BoS | Signature |
|--------|---------------------------|---|-------------|---|
| 1. | Dr. S. Sunil Kumar Reddy | Professor &HOD-SIETK | Chairman |  |
| 2. | Dr. C.Sreedhar | Professor-SIETK | Member |  |
| 3. | Dr. F. Anand Raju | Professor-SIETK | Member |  |
| 4. | Dr. S. Suresh | Professor-SIETK | Member |  |
| 5. | Dr. K. Siva Kumar | Associate Professor-SIETK | Member |  |
| 6. | Dr. BVSSS Prasad | Professor, Dept of ME IIT, Madras, Chennai | Member | ABSENT |
| 7. | Dr. G. Jaya Chandra Reddy | Professor & Head Yogi Vemana University Prodattur, Kadapa | Member |  |
| 8. | Dr. N. N.Kishore | Professor, Dept of ME IIT, Tirupathi, Chittoor | Member |  |
| 9. | Mr. B. Madhu Prathap | Director, SIBAR Auto Parts,Industrial Estate, Renigunta, Chittoor Dist. | Member |  |
| 10. | Mr. R. Bhaskar Reddy | Asst.Professor, SPMVV, Tirupathi, Chittoor Dist. | Member |  |